

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Facilitating the Deployment of Text-to-911)	PS Docket No. 11-153
and Other Next Generation 911 Applications)	
)	
Framework for Next Generation 911)	PS Docket No. 10-255
Deployment)	

COMMENTS OF VERIZON AND VERIZON WIRELESS

Verizon and Verizon Wireless¹ are committed to the development and deployment of innovative Next Generation 911 (“NG911”) technologies that will enhance emergency communications for consumers and PSAPs, and to the implementation of interim text-to-911 capabilities until IP-enabled text and other services are deployed more broadly and integrated into public safety networks. Verizon is an industry leader in developing and deploying text-to-911 technologies, and a signatory to the December 2012 voluntary agreement with public safety organizations to make text-to-911 available to capable PSAPs nationwide beginning in May 2014.² The Agreement reflects what is technically feasible, and is a reasonable interim measure until IP-enabled NG911 services become more widely available. The Commission thus should allow the Agreement to be implemented, and monitor the quarterly reports that signatories will file beginning this July, before considering new rules in this proceeding. Any rules which it ultimately concludes are necessary must be technically feasible.

¹ In addition to Verizon Wireless, the Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc.

² See Letter from APCO, NENA, AT&T, Sprint Nextel, T-Mobile, and Verizon, PS Docket Nos. 11-153 and 10-255, filed Dec. 6, 2012 (the “Agreement”).

I. INDUSTRY AND PUBLIC SAFETY STAKEHOLDERS ARE DEVELOPING AND DEPLOYING 911 TEXT MESSAGING CAPABILITY.

Verizon initiated its groundbreaking text-to-911 trial in Durham, North Carolina, well over one year ago. It has launched additional text-to-911 trials or commercial deployments statewide in Vermont, the Hampton Roads area of Virginia, Wise County, Texas, and Frederick County, Maryland, and expects to initiate text-to-911 in several more jurisdictions over the coming weeks and months. Verizon's product development and network teams also are engaged in text-to-911 and NG911-related standards development efforts, including the incorporation of RTT capability into future device requirements. These efforts will help guide industry's and PSAPs' more widespread implementation of text-to-911 and NG911 in the future and are consistent with the Commission's and other stakeholders' stated NG911 policy objectives.³

Last December, Verizon, AT&T, Sprint Nextel, and T-Mobile all voluntarily agreed to provide text-to-911 service for SMS-based platforms beginning in May of 2014. The terms of the Agreement, developed in cooperation with the national public safety associations, are consistent with and largely based upon Verizon's experience in trials and in the development of its own innovative text-to-911 solution, as well Verizon's experience working jointly with individual vendors and PSAPs. Verizon thus supports broader industry and PSAP implementation of the Agreement, which the Commission should allow to proceed before

³ See *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, PS Docket Nos. 11-153 and 10-255, Further Notice of Proposed Rulemaking, FCC 12-149, ¶ 44 (rel. Dec. 13, 2012) ("*FNPRM*") ("recogniz[ing] that text-to-911 based on pre-NG technologies does not provide the full functionality of NG911-based text"); *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, Notice of Proposed Rulemaking, 26 FCC Rcd 13615, ¶¶ 68-75 (2011) ("*NPRM*") (describing benefits of NG911); Emergency Access Advisory Committee Report, Recommendation P6.5, at 28 (Jan. 26, 2012) (recommending removal of TTY requirement for certain "IP-based consumer devices that implement IP-based text communications").

adopting new rules in this area. The rulemaking record already indicates interest by other service providers,⁴ and the Commission and other stakeholders can monitor and learn from the quarterly reports to assess whether PSAP interest and implementation warrants new rules.

Given this history of industry and PSAP cooperation and coordination, the Commission should not be concerned that the absence of a text-to-911 mandate and deadline could result in “non-uniform and uncoordinated implementation.”⁵ Industry and public safety stakeholders *already* are coordinating text-to-911 deployment and, in Verizon’s experience, have been able to constructively and amicably resolve technical and other issues that have arisen. Moreover, as discussed below and as the Commission acknowledged just last month in its Report to Congress on NG911 implementation, the deployment of any 911-related capability, and its availability to consumers, will critically depend on the resources, capabilities and interest of state and local PSAPs.⁶ Indeed, the Commission itself recommended to Congress that “PSAPs should determine their readiness to deploy NG911 systems” and “should not be denied such traffic because other PSAPs within a state are not ready to accept such traffic.”⁷ Mandatory rules and deadlines for service providers would not address the fundamental role of PSAP acceptance of and investment in text-to-911, which are a prerequisite to its nationwide implementation.

⁴ See Reply Comments of Competitive Carriers Ass’n, filed Feb. 8, 2013, at 1 (“CCA is hopeful that its carrier-members will be able to reach a similar agreement in the near future.”).

⁵ See *FNPRM* ¶ 45.

⁶ See *infra* Section III; Federal Communications Commission, *Legal and Regulatory Framework for Next Generation 911 Services*, Report to Congress and Recommendations, § 4.1.4.1 (Feb. 22, 2013) (“mechanisms for collection [of 911 fees], and the amounts collected, can differ substantially across jurisdictional boundaries” and “[h]ow funds may be spent also varies between states, creating further disparities among the states’ 911 programs ...”); *id.* § 4.1.3.2(2) (“The record indicates that NG911 deployments and ESInet construction will be piecemeal.”).

⁷ *Id.* § 4.1.3.2(1).

II. RULES CONSISTENT WITH THE AGREEMENT WOULD BE TECHNICALLY FEASIBLE AND ENABLE STAKEHOLDERS TO FOCUS EFFORTS ON NG911 DEPLOYMENT.

While implementation and monitoring of the Agreement will effectively serve consumers' needs and the Commission's interest in a widely available interim text-to-911 solution,⁸ should the Commission determine to adopt rules those rules must be technically and economically feasible,⁹ and should apply uniformly to all wireless service providers, irrespective of size.¹⁰ Unlike the Commission's earlier experience with wireless E911 when its technical feasibility determinations were necessarily premised on its predictive judgment concerning the prospective availability of E911 location technologies,¹¹ the Commission already has a record as to the feasibility of various approaches. The Commission thus appropriately proposes that any text-to-911 rules be based upon the Agreement, which is in turn based on industry's real-world experience in developing and deploying text-to-911 solutions.¹² In several important respects,

⁸ See *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, Notice of Proposed Rulemaking, 26 FCC Rcd 13615, ¶¶ 34, 54 (2011) ("NPRM") (looking to SMS "as a short-term alternative" that service providers could offer on an interim basis until IP-enabled text-to-911 services and applications are widely available to consumers).

⁹ See *Nuvio Corp. v. FCC*, 473 F.3d 302, 303 (D.C. Cir. 2007) (adequate consideration of "the technical and economic feasibility of" interconnected VoIP E911 deadlines was "made necessary by the bar against arbitrary and capricious decision-making"). Verizon has discussed the Commission's statutory authority in this area in its previous comments. See Comments of Verizon, PS Docket Nos. 11-153, 10-255, filed Dec. 12, 2011, at 24-28; Reply Comments of Verizon, PS Docket Nos. 11-153, 10-255, filed Feb. 9, 2012, at 6-7.

¹⁰ See *FNPRM* ¶¶ 101-102.

¹¹ See *Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 18676, ¶¶ 58, 68 (1996) (*E911 First Report and Order*), Third Report and Order, 14 FCC Rcd 17388, ¶¶ 43-54 (1999), and Fourth Memorandum Opinion and Order, 15 FCC Rcd 17442, ¶¶ 17-23 (2000).

¹² *FNPRM* ¶ 60.

however, the proposed rules would impose requirements that are not technically feasible at this time.

A. The Commission Should Clarify that a CMRS Provider’s Obligation Extends to the Coverage Area of its Legacy SMS Network

The Commission’s proposes that text-to-911 be provided across a CMRS provider’s “entire coverage area” by May 20, 2014.¹³ The Commission is generally correct that text-to-911 service is technically feasible by the proposed deadline, provided that the obligation is limited to SMS services offered via legacy networks, and that the provision of text-to-911 via alternate IP-enabled platforms is optional. The Commission should therefore clarify that (1) the May 20, 2014 deadline will apply only to coverage areas served by a CMRS provider’s legacy SMS network, and (2) while CMRS providers may comply with the obligation via a text-to-911 option other than SMS, the regulatory obligation will apply only where the service provider’s legacy SMS network is available to the subscriber. This will ensure that the Commission’s rules are technically feasible, while also facilitating the migration to NG911 LTE/next generation networks as they are deployed and incorporate text-to-911 capabilities.

B. Requirements for “Pre-Installed” Text-to-911 and Downloaded Apps for Third Party Devices Are Unnecessary.

The Commission proposes that each device have text-to-911 “pre-installed” on devices and that a downloadable app be made available for devices a customer “brings to” a CMRS provider’s network. This proposal is unnecessary. Text-to-911 solutions do not entail any “pre-installed text-to-911” option *per se*, but are simply incidental to the underlying SMS service and network capabilities. Text-to-911 capabilities are not device- or application-based. Imposing

¹³ See *FNPRM* at App. B.

such requirements on service providers is unnecessary, and the Commission should not include them in any final rule.

C. The *FNPRM* Appropriately Recognizes that the Full Panoply of CMRS 911 and E911 Capabilities Is Not Feasible for Text-to-911.

The Commission's proposed basic call routing requirement that the 911 text message be routed to the "appropriate PSAP" appears technically feasible. This approach is consistent with the Agreement and with Verizon's current practice. The proposed rule, however, presumes that the specific call routing mechanisms will be the same or similar as for voice 911 calls, as text-to-911 will utilize different networks and routing protocols. This is not necessarily true. With voice, a particular cell sector is assigned to route 911 calls to a particular PSAP; text-to-911 call routing is based on the centroid of the cell tower's RF coverage as determined by the commercial LBS server. As a result, in some limited circumstances, such as text messages transmitted on the borders of cell site coverage areas, text communications may route differently than voice 911 calls. The Commission has already recognized in the voice 911 context that call routing issues such as these will require coordination among service providers and the affected PSAPs,¹⁴ and the same issues may arise with text-to-911. The Commission should thus delete the language in the proposed rule "to the same PSAP to which they currently route 911 calls" and instead defer to PSAP-service provider arrangements to resolve those issues, as is currently done for voice 911 calls.

¹⁴ See *Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Memorandum Opinion and Order, 12 FCC Rcd 22665, ¶¶ 98-99 (1997) ("carriers need to coordinate with the state and local governmental entities to determine the designated PSAP, particularly where their service areas cover multiple political jurisdictions").

In this regard as well, the Commission should encourage public safety stakeholders to work cooperatively to implement text-to-911 on a wide regional or statewide basis, similar to Vermont's approach, and the draft call routing rule generally appears consistent with that objective. The Commission should ensure, however, that the provision for a "responsible local or state entity designat[ing] a different PSAP to receive 911 text messages" is not used to draw service providers into untenable 911 text routing disputes between PSAPs, as has occasionally occurred in the wireless 911 context.

The Commission also seeks comment on text-to-911 location accuracy capabilities, but correctly concludes that service providers should transmit "coarse" information akin to E911 Phase I cell site location data, not "precise" caller location information, to the PSAP for a text-to-911 communication.¹⁵ Such an approach is consistent with the Agreement and technically feasible using current technologies. The Commission should leave the development of precise location information capability for text-to-911 to further product and application development and related standards work using LTE and NG911 technologies.

D. The Proposed Roaming Rule is Technically Infeasible at This Time.

The Commission's proposed rule would require that "the home and visiting network operators must cooperate to support the delivery of the text to the appropriate PSAP serving the sender's location."¹⁶ This capability is not covered by the Agreement, which is premised on service providers' existing SMS network configurations. Nor is it addressed by current industry standards development efforts. SMS messages, including those of foreign travelers roaming

¹⁵ Consistent with the relevant technical standards development and deployment efforts to date, the terms "coarse" and "precise" location information should be used instead of "Phase 1" and "Phase 2," respectively.

¹⁶ *FNPRM* at App. B.

into the United States, are always routed to the home carrier's SMSC, not the visiting carrier's. And the home carrier, by definition, does not have a presence in the local PSAP's market. In contrast, a voice 911 call is handled by the visiting carrier's MSC and will be routed like any other 911 call. Thus, resolving this issue will be very complex.

Verizon anticipates that this issue will be addressed in a later version of the standard currently under development. The additional standards work and implementation, however, could last well into 2015. The proposed roaming capability is thus not technically feasible – certainly not by the proposed May 2014 deadline. The Commission should therefore allow industry stakeholders to address this issue and defer consideration of any rules at this time.

III. PSAP CAPABILITY IS A PREREQUISITE TO TEXT-TO-911 AND SERVICE PROVIDERS AND PSAPS REQUIRE FLEXIBILITY IN IMPLEMENTATION.

The Commission seeks comment on whether to expressly require that CMRS providers accommodate a variety of PSAP text-to-911 platforms and solutions. Verizon deliberately developed a text-to-911 solution that accommodates multiple PSAP capabilities and underscores that many of the PSAP deployment options described in the *FNPRM* are technically feasible.¹⁷ Verizon is working constructively and cooperatively with PSAPs in the several markets where it has initiated or preparing text-to-911 deployments.

Detailed rules requiring that service providers accommodate particular PSAP configurations, however, are unnecessary and would be counterproductive. Verizon's experience provides no reason for or criteria by which the Commission should impose detailed service provider-PSAP connectivity and related requirements. The Commission expressly declined to do so in the voice E911 context, requiring only that the PSAP be "capable of

¹⁷ See *FNPRM* ¶¶ 96-98.

receiving and utilizing the data elements associated with the service,” and providing clarification over time as disputes arose.¹⁸ There is no reason for the Commission to do otherwise for text-to-911, given the differences among PSAP capabilities and resources, the complexities and evolving nature of text-to-911 solutions, and the variety of platforms over which service providers and PSAPs will provision text-to-911. For similar reasons, while Verizon expects its text-to-911 solutions to support PSAP implementation of the i3 technical specifications, it is unnecessary for the Commission to mandate such a capability.¹⁹

The Commission should *not*, as it suggests, compel service providers to begin transmitting 911 text messages to PSAPs’ TTY devices as a default after a given date.²⁰ PSAPs may have their own legitimate reasons (such as resources, liability concerns, and training) for not accepting text messages at their TTY equipment, and there is a significant risk of customer confusion due to disparities between customers’ expectations and the PSAP’s readiness in those cases. At least one jurisdiction has informed Verizon that it does not want to accept text-to-911 in its area until its NG911 network is deployed, so such a requirement would place service providers in an untenable position.

Rather, the appropriate approach to this issue is already set forth in the Agreement. Specifically, the Commission’s rules should explicitly afford service providers a six-month period of time between a valid request and the initiation of text-to-911 service to resolve

¹⁸ See 47 C.F.R. § 20.18(j); *E911 First Report and Order* at ¶¶ 73-76; *Revision of the Commission’s Rules to Ensure compatibility with Enhanced 911 Emergency Calling Systems*, Second Memorandum Opinion and Order, 14 FCC Rcd 20850, ¶¶ 75, 89-90 (1999); *Revision of the Commission’s Rules to Ensure compatibility with Enhanced 911 Emergency Calling Systems*, Order on Reconsideration, 17 FCC Rcd 14789, ¶ 7 (2002).

¹⁹ See *FNPRM* ¶ 128.

²⁰ See *FNPRM* ¶ 146.

implementation issues cooperatively, with the ability to mutually agree to a longer implementation period, consistent with the current wireless E911 rules.

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